

ABSTRACT

The present invention provides combinatorial methods for rapidly generating a diverse library of glycorandomized structures, comprising incubating one or more aglycons and a pool of NDP-sugars in the presence of a glycosyltransferase. The 5 glycosyltransferase may be one that is associated with or involved in production of natural secondary metabolites, or one which is putatively associated with or involved in production of natural secondary metabolites. The glycosyltransferase may show significant flexibility with respect to its NDP-sugar donors and/or its aglycons. NDP- sugar donors may be commercially available, or may be produced by utilizing mutant or 10 wild type nucleotidyltransferases significant flexibility with respect to their substrates.